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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,278	08/15/2001	Keith Bentley	36488-169754	8202

Venable
P.O. Box 34385
Washington, DC 20043-9998

EXAMINER

LE, MIRANDA

ART UNIT	PAPER NUMBER
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2167

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/929,278

Applicant(s)

BENTLEY, KEITH

Examiner

Miranda Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 83-116 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 83-116 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is responsive to Amendment, filed 10/25/06.
2. Claims 83-116 are pending in this application. Claims 83, 99, 101 are independent claims. In the Amendment, claims 1-82 have been cancelled, and new claims 102-116 have been added. This action is made Final.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 83-94, 99-112 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selvin et al. (US Patent No. 6,718,329), in view of Shiba et al. (US Pub. No. 20010004245).

As per claim 83, Selvin teaches a computer readable medium for storing data for access by an application program, comprising:

a file format (*i.e. nodes 60 and link definitions 70 can be stored in a file, col. 9, lines 21-47*) defining a structure of a file stored in said computer readable medium (*i.e. hypertext database, col. 3, lines 20-29*), the file format including,

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elements (*i.e. nodes, inter- node, col. 11, lines 46-59*) stored in the computer readable medium, the elements being variable sized data records (*i.e. length, col. 7, lines 22-43*) arranged in a format that can be interpreted by a computer program (*col. 7, lines 12-57, col. 8, lines 4-59, col. 11, lines 16-59*),

element chunks (*i.e. LABEL field, CONTENT field, NODE TYPE field, col. 7, lines 22-43*) stored in the computer readable medium, the element chunks being variable sized and including groups of the elements, the element chunks having a unique name (*i.e. LABEL, CONTENT, NODE TYPE, col. 7, lines 22-43*) and a fixed header (*i.e. heading 1, paragraph 1 and so forth, col. 7, lines 22-43*) including at least one of a number of elements in the element chunks (*col. 7, lines 12-57, col. 8, lines 4-59, col. 11, lines 16-59*),

a model stored (*i.e. link type, col. 11, lines 46-59*) in the computer readable medium, the model including groups of related element chunks and a model header stream (*i.e. heading, col. 7, lines 22-43*), the model header steam including at least one of a model name, units, or a geometric range for the model (*col. 7, lines 12-57, col. 8, lines 4-59, col. 11, lines 1-59*), and

a root storage (*i.e. a node, col. 11, lines 41-45*) stored in the computer readable medium, the root storage including at least one model (*i.e. logical or hierarchical relationship, col. 3, lines 7-19*) (*col. 7, lines 12-57, col. 8, lines 4-59*).

Selvin does not expressly teach a compression scheme, or an encryption scheme for the elements.

However, Shiba teaches a compression scheme for the elements (*i.e. The CAD data compressing method, [0027]*).

It would have been obvious to one of ordinary skill of the art having the teaching of Selvin and Shiba at the time the invention was made to modify the system of Selvin to include a compression scheme for the elements as taught by Shiba. One of ordinary skill in the art would be motivated to make this combination in order *to handle a CAD data in which repetitive figures and non-repetitive figures co-exist* in view of Shiba ([0008]), as doing so would give the added benefit of handling a huge the CAD data as taught by Shiba ([0004]).

As per claim 99, Selvin teaches a computer program product comprising a computer readable medium having a computer program logic stored therein, the computer program logic comprising:

means for enabling said computer system to allocate elements having a variable size (*i.e. length, col. 7, lines 22-43*) to element chunks, the element chunks being variable sized and including groups of the elements (*i.e. nodes, inter- node, col. 11, lines 46-59*), the element chunks (*i.e. LABEL field, CONTENT field, NODE TYPE field, col. 7, lines 22-43*) having a unique name (*i.e. LABEL, CONTENT, NODE TYPE, col. 7, lines 22-43*) and a fixed header including at least one of a number of elements (*i.e. heading 1, paragraph 1 and so forth, col. 7, lines 22-43*) in the element chunk (*col. 7, lines 12-57, col. 8, lines 4-59*);

means for enabling said computing unit to store in the computer readable medium at least one model (*i.e. link type, col. 11, lines 46-59*), wherein said at least one model is for grouping related elements, is identifiable by a unique identifier (*i.e. link identifier, col. 11, lines 46-59*), and comprises a control element list having variable sized element chunks containing control elements (*i.e. terms define logical position of nodes, col. 7, lines 22-43*), and a graphic element

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list having variable sized element chunks containing graphic elements (*i.e. a highlight or bold text format code, col. 8, lines 4-24*) (*col. 7, lines 12-57, col. 8, lines 4-59*); and

means for enabling a computing unit to store a root storage (*i.e. a node, col. 11, lines 41-45*) comprising the model (*i.e. logical or hierarchical relationship, col. 3, lines 7-19*) in the computer readable medium (*i.e. hypertext database, col. 3, lines 20-29*) (*col. 7, lines 12-57, col. 8, lines 4-59, col. 11, lines 16-59*).

Selvin does not expressly teach a compression scheme, or an encryption scheme for the elements.

However, Shiba teaches a compression scheme for the elements (*i.e. The CAD data compressing method, [0027]*).

It would have been obvious to one of ordinary skill of the art having the teaching of Selvin and Shiba at the time the invention was made to modify the system of Selvin to include a compression scheme for the elements as taught by Shiba. One of ordinary skill in the art would be motivated to make this combination in order *to handle a CAD data in which repetitive figures and non-repetitive figures co-exist* in view of Shiba ([0008]), as doing so would give the added benefit of handling a huge the CAD data as taught by Shiba ([0004]).

As per claim 101, Selvin teaches a CAD design file (*CAD programs, col. 4, lines 19-34*) having a file format (*i.e. nodes 60 and link definitions 70 can be stored in a file, col. 9, lines 21-47*) and stored on a computer readable medium (*i.e. hypertext database, col. 3, lines 20-29*), the CAD design file comprising:

elements (*i.e. nodes, inter- node, col. 11, lines 46-59*) representing items of the CAD design, the elements being variable sized data records (*i.e. length, col. 7, lines 22-43*) arranged in a format that can be interpreted by a computer program (*col. 7, lines 12-57, col. 8, lines 4-59*),

element chunks (*i.e. LABEL field, CONTENT field, NODE TYPE field, col. 7, lines 22-43*) including groups of the elements, the element chunks having a unique name (*i.e. LABEL, CONTENT, NODE TYPE, col. 7, lines 22-43*) and a fixed header including a least one of a number of elements (*i.e. heading 1, paragraph 1 and so forth, col. 7, lines 22-43*) in the element chunk, the element chunks having a variable size, the groups of elements including control elements (*i.e. terms define logical position of nodes, col. 7, lines 22-43*) having no physical representation and graphic elements having a graphical representation (*i.e. a highlight or bold text format code, col. 8, lines 4-24*) (*col. 7, lines 12-57, col. 8, lines 4-59*),

a model (*i.e. LABEL field, CONTENT field, NODE TYPE field, col. 7, lines 22-43*), the model including groups of related element chunks and a model header stream (*i.e. heading, col. 7, lines 22-43*), the model header stream including at least one of a model name (*i.e. LABEL, CONTENT, NODE TYPE, col. 7, lines 22-43*), units, or a geometric range for the model; (*col. 7, lines 12-57, col. 8, lines 4-59*) and

a root storage (*i.e. a node, col. 11, lines 41-45*) including at least one model and a control model (*i.e. logical or hierarchical relationship, col. 3, lines 7-19*) storing information shared across other models in the root storage (*col. 7, lines 12-57, col. 8, lines 4-59*).

Selvin does not expressly teach a compression scheme, or an encryption scheme for the elements.

However, Shiba teaches a compression scheme for the elements (*i.e. The CAD data compressing method, [0027]*).

It would have been obvious to one of ordinary skill of the art having the teaching of Selvin and Shiba at the time the invention was made to modify the system of Selvin to include a compression scheme for the elements as taught by Shiba. One of ordinary skill in the art would be motivated to make this combination in order *to handle a CAD data in which repetitive figures and non-repetitive figures co-exist* in view of Shiba ([0008]), as doing so would give the added benefit of handling a huge CAD data as taught by Shiba ([0004]).

As to claims 84, 102, Selvin teaches the computer readable medium of claim 83, further comprising element lists including element chunks classified according to their meaning in the model, the element lists including the unique name for each element chunk in the respective element list (*col. 2, line 55 to col. 3, line 50, col. 7, lines 12-57, col. 8, lines 4-59*).

As to claims 85, 103, Selvin teaches the computer readable medium of claim 84, wherein the elements include control elements having no physical representation and graphic elements having a graphical representation (*col. 7, lines 12-57, col. 8, lines 4-59*).

As to claims 86, 104, Selvin teaches the computer readable medium of claim 85, wherein the element lists include a graphic element list listing the graphic elements and a control element list listing the control elements (*col. 8, lines 4-59*).

As to claims 87, 105, Selvin teaches the computer readable medium of claim 83, wherein the element chunks include a fixed number of elements (*col. 7, lines 12-57, col. 8, lines 4-59*).

As to claims 88, 106, Selvin teaches the computer readable medium of claim 83, further comprising:

a plurality of models (*col. 7, lines 12-57, col. 8, lines 4-59*); and

a model directory stored in the root storage and including a list of the models, the models having a unique name within their respective model directory (*col. 7, lines 12-57, col. 8, lines 4-59, col. 11, lines 41-45*).

As to claims 89, 107, Selvin teaches the computer readable medium of claim 83, wherein the root storage further includes a file header stream, a session information stream, a manifest information stream, or a file properties stream stored therein (*col. 7, lines 12-57, col. 8, lines 4-59, col. 11, lines 41-45*).

As to claims 90, 108, Selvin teaches the computer readable medium of claim 83, further comprising a control model directly stored in the root storage and storing information shared across other models in the root storage (*col. 7, lines 12-57, col. 8, lines 4-59, col. 11, lines 41-45*).

As to claims 91, 109, Selvin teaches the computer readable medium of claim 83, wherein said root storage further comprises a control model storage containing a control model header, a

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global control element list storage and a global graphic element list storage, wherein said global control element list storage and said global graphic element list storage contain element chunk including global elements (*col. 7, lines 12-57, col. 8, lines 4-59, col. 11, lines 41-45*).

As to claims 92, 110, Selvin teaches the computer readable medium of claim 91, wherein said global elements contain information relevant for all models in said model directory storage(*col. 7, lines 12-57, col. 8, lines 4-59*).

As to claims 93, 111, Shiba teaches the computer readable medium of claim 86, wherein at least one element chunk in said graphic element list is compressed (*[0015-0027]*).

As to claims 94, 112, Shiba teaches the computer readable medium of claim 86, wherein at least one element chunk in said control element list is compressed (*[0015-0027]*).

As per claim 100, Selvin teaches the computer program product of claim 99, further comprising:

means for enabling said computer system to store a graphic element list storage and a control element list storage in each control model (*col. 7, lines 12-57, col. 8, lines 4-59*).

means for compressing each element chunk stream to be stored in said graphic element list storage or said control model list storage in said control model directory Shiba teaches (*[0015-0027]*).

5. Claims 95-98, 113-116 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selvin et al. (US Patent No. 6,718,329), in view of Shiba et al. (US Pub. No. 20010004245), and further in view of Loveland (US Pub. No. 20020161608).

As to claims 95, 113, Selvin and Shiba do not expressly teach the computer readable medium of claim 86, wherein at least one element chunk in said graphic element list is encrypted.

However, Loveland teaches at least one element chunk in said graphic element list is encrypted (*i.e. CAD file 202, encryption, [0094-0097]*).

It would have been obvious to one of ordinary skill of the art having the teaching of Selvin, Shiba and Loveland at the time the invention was made to modify the system of Selvin and Shiba to include at least one element chunk in said graphic element list is encrypted as taught by Loveland.

One of ordinary skill in the art would be motivated to make this combination in order to create an access protocol with user ID's and passwords or other security, encryption or access limitation measures as taught by Loveland ([0097]).

As to claims 96, 114, Selvin and Shiba do not expressly teach the computer readable medium of claim 86, wherein at least one element chunk in said control element list is encrypted.

However, Loveland teaches at least one element chunk in said control element list is encrypted (*i.e. CAD file 202, encryption, [0094-0097]*).

It would have been obvious to one of ordinary skill of the art having the teaching of Selvin, Shiba and Loveland at the time the invention was made to modify the system of Selvin

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and Shiba to include at least one element chunk in said control element list is encrypted as taught by Loveland.

One of ordinary skill in the art would be motivated to make this combination in order to create an access protocol with user ID's and passwords or other security, encryption or access limitation measures as taught by Loveland ([0097]).

As to claims 97, 115, Shiba teaches the computer readable medium of claim 86, wherein at least one element chunk in said control element list is compressed ([0015-0027]).

Selvin and Shiba do not expressly teach the computer readable medium of claim 86, wherein at least one element chunk in said control element list is encrypted.

However, Loveland teaches at least one element chunk in said graphic element list is encrypted (*i.e. CAD file 202, encryption, [0094-0097]*).

It would have been obvious to one of ordinary skill of the art having the teaching of Selvin, Shiba and Loveland at the time the invention was made to modify the system of Selvin and Shiba to include at least one element chunk in said control element list is encrypted as taught by Loveland.

One of ordinary skill in the art would be motivated to make this combination in order to create an access protocol with user ID's and passwords or other security, encryption or access limitation measures as taught by Loveland ([0097]).

As to claims 98, 116, Shiba teaches the computer readable medium of claim 86, wherein at least one element chunk in said graphic element list is compressed ([0015-0027]).

Selvin and Shiba do not expressly teach the computer readable medium of claim 86, wherein at least one element chunk in said graphic element list is encrypted.

However, Loveland teaches at least one element chunk in said graphic element list is encrypted (*i.e. CAD file 202, encryption, [0094-0097]*).

It would have been obvious to one of ordinary skill of the art having the teaching of Selvin, Shiba and Loveland at the time the invention was made to modify the system of Selvin and Shiba to include at least one element chunk in said graphic element list is encrypted as taught by Loveland.

One of ordinary skill in the art would be motivated to make this combination in order to create an access protocol with user ID's and passwords or other security, encryption or access limitation measures as taught by Loveland ([0097]).

Response to Arguments

5. Applicant's arguments with respect to claims 83-116 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

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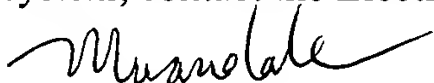
MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (571) 272-4112. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

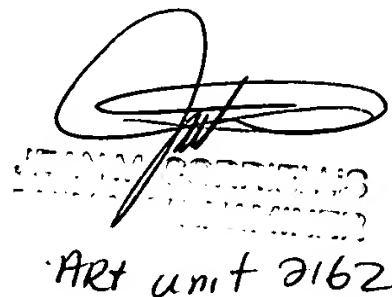
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham, can be reached on (571) 272-7079. The fax number to this Art Unit is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Miranda Le
February 02, 2007



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